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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,083	04/28/2005	Thuy-Phuong Le	2002P03505WOUS	2307

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SIEMENS CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
170 WOOD AVENUE SOUTH  
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EXAMINER
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NILANONT, YOUNAPORN

ART UNIT	PAPER NUMBER
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4121

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,083	<b>Applicant(s)</b> LE ET AL.	
	<b>Examiner</b> YOUAPORN NILANONT	<b>Art Unit</b> 4121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>28 April 2005</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because it recites the terms “means,” “said,” and “thereof.” The abstract should be in narrative form and the form and legal phraseology often used in patent claims, such as “means” and “said,” should be avoided. Correction is required. See MPEP § 608.01(b) and § 1826 [R-6] Summary of Abstract Requirements.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The term “without influence” cited in claim 9 is not described further in the specification. It is only repeated once again in paragraph [0025] of page 10, thus renders the claim vague. For purposes of examination, the term has been construed as describing a connection that encapsulates packet before transmitting and thus enforces no additional influence on the packet itself.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8, 10-11, 13, 15, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles et al. (U.S. 2001/0034759) in view of SGI (Techpubs Library "IRIX Admin: Networking and Mail").

6. With respect to claim 8, the Chiles reference teaches a method for interchanging data between an external device (Chiles et al. Figure 4 "Host System" 430) and applications installed on a plurality of network elements (Chiles et al. [0011] Lines 1-5 "client device having computer software that enables the client devices... to communicate with the host system") of a packet-switching network (inherently implied by the use of TCP/IP protocol by the client device [0060] in Chiles et al.) using a tunnel connection (Chiles et al. Abstract Lines 11-14 "communication tunnel"), wherein each network element is connected to a network node device (Chiles et al. Abstract Lines 11-12 "The client devices are typically connected to the home gateway device"), and wherein the network node device is involved in the tunnel connection (Chiles et al. [0063] Lines 4-7 "The home gateway device uses L2TP to tunnel the PPP traffic from each client PPPoE session to the host system") , the method comprising: assigning to a network-end terminal point of the tunnel connection a globally unique address (Chiles et al. [0087] Lines 17-21 and [0088] Lines 6-8 "IP address" from the host system), wherein the network node device forms the network-end terminal point of the tunnel connection if a plurality of network elements jointly use of the tunnel connection, wherein all data are routed through the network node device (Chiles [0070] Lines 13-16 and [0063] Lines 4-10), and wherein the network node device

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is a terminal point of the tunnel connection (a NAT enabled router of Chiles is known in the art to be a terminal point of the tunnel connection in the views of the external networks).

If the network element requires a global address for executing an application, the Chiles reference discloses how the network element is assigned a global address (Chiles et al. [0096] Lines 12-16). However, where the Chiles reference does not teach, the SGI reference teaches a method of setting up the tunnel connection and forming the network-end terminal point of the tunnel connection by a network element, wherein the tunnel connection is exclusively used by the network element (See SGI "Setting Up Tunnels to Support Multicast Packets" and Figure 3-2), and wherein the network node device is a data-routing entity of the tunnel connection (See SGI Figure 3-2 "Router 1" and "Router 2").

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have combined the teachings of Chiles and SGI references together in a single device in order to be able to support Legacy network hardware systems.

7. With respect to claim 10, the Chiles and SGI references teach the limitations of claim 8 in which claim 10 is depending upon as noted above. The Chiles reference further teaches, the network elements are computers (Chiles et al. Figure 4 "Window PC" 405a) and the external device (Chiles et al. Figure 4 "Host System" 430) is an Internet service provider (Chiles et al. [0007] Lines 5-6) connected by a DSL modem (Chiles et al. Figure 4 "xDSL Modem" 420d).

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8. With respect to claim 11, the Chiles reference further teaches the computers as claimed in claim 10 are Personal Computers (Chiles et al. Figure 4 "Windows PC" 405a).

9. With respect to claim 13, in addition to limitations of claim 8, in which claim 13 is depending upon, which are taught by the Chiles and SGI references, the Chiles reference teaches the network elements have associated local addresses which are unique only in the packet-switching network (Chiles [0085] Lines 1-3 and [0086] Lines 1-4).

10. With respect to claim 15, the Chiles and SGI references teach limitations as claimed in claim 10, in which claim 15 depends on. In addition, the Chiles reference further teaches the network elements have associated local addresses which are unique only in the packet-switching network (Chiles Figure 12 "LAN Address", [0085] Lines 1-3, and [0086] Lines 1-4).

11. With respect to claims 20 and 21, the combination of Chiles and SGI disclosures teach the network node device that is a terminal point or a data-routing entity of the tunnel connection as noted above. Therefore, it is inherent the device resulted from this combination is capable of performing as "a terminal point" or "a data-routing entity" of the tunnel connection either "alternately" or "simultaneously."

12. With respect to claims 22, the combination of Chiles and SGI teachings obviously implies that the network node device is a terminal point or a data-routing entity of a plurality of tunnel connections: tunnel connections that terminate at the network node device as taught by the Chiles reference and

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tunnel connections that terminate at the network elements as taught by the SGI reference.

13. With respect to claim 23, the Chiles reference discloses a network node device (Chiles et al. Figure 4 "Home Gateway Device" 415) involved in interchanging data using at least one tunnel connection (Chiles et al. Abstract "communication tunnel" Lines 11-14) between an external device (Chiles et al. Figure 4 "Host System" 430) and applications installed on a plurality of network elements (Chiles et al. [0011] Lines 1-5) of a packet-switching network (inherently implied by the used of TCP/IP [0060] in Chiles reference) wherein each network element is connected to a network node device (Chiles et al. Figure 4 client devices 405), wherein a network-end terminal point of the tunnel connection has a uniquely allocated global address (Chiles et al. [0089] Lines 1-4, [0087] Lines 17-21, and [0088] Lines 5-7), wherein the network node device forms the network-end terminal point of the tunnel connection (Chiles et al. [0096] Lines 14-16) if a plurality of network elements jointly use the tunnel connection (Chiles et al. [0063] Lines 4-10).

If a network element requires a global address for executing an application, the Chiles reference does not disclose of a tunnel connection set up by the network element, but rather teaches the network element that sets up sessions to communicate through the tunnel connection and all data are routed through the network node device (Chiles et al. [0089]). However, the SGI document discloses the network element sets up the tunnel connection and forms the network-end terminal point of the tunnel connection, wherein

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the tunnel connection is configured to be exclusively used by the network element (See SGI "Setting Up Tunnels to Support Multicast Packets" and Figure 3-2). For the same reason noted above, it would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have combined the teachings of Chiles and SGI references together in a single device in order to be able to support Legacy network hardware systems.

14. Claims 9, 12, 14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles et al. (U.S. 2001/0034759) in view of SGI (Techpubs Library "IRIX Admin: Networking and Mail"), further in view of Microsoft TechNet ("Microsoft Privacy Protected Network Access: Virtual Private Networking and Intranet Security").

15. Regarding claim 9, the Chiles and SGI references teach the limitations of claim 8, in which claim 9 is depending upon. In particular, the Chiles reference teaches the tunnel connection is a connection which operates on the basis of the L2TP tunneling protocol which transmits the data in a tunneled connection without influence (Chiles et al. [0063] Lines 4-10), instead of a PPTP tunneling protocol as cited in claim 9. However the Microsoft document discloses of L2TP tunneling protocol as a combination of PPTP and L2F protocols (Microsoft Page 2 "Layer 2 Tunneling Protocol (L2TP)"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted PPTP protocol in place of L2TP protocol in order to provide backward compatibility for older network elements since PPTP was first delivered in 1996, 2 years before the availability of L2TP (See Microsoft "PPTP Design Goals and



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Overview" page 3). Furthermore, Microsoft reference teaches that PPTP tunneling protocol is simple and inexpensive to set up, and thus will continue to be a preferred choice for a certain group of customers (See Microsoft "PPTP" page 5-6)

16. Regarding claim 12, the Chiles, SGI, and Microsoft references teach all the limitations of claim 9 in which claim 12 depends on. Furthermore, the Chiles reference teaches the network elements are computers (Chiles et al. Figure 4 "Window PC" 405a) and the external device (Chiles et al. Figure 4 "Host System" 430) is an Internet service provider (Chiles et al. [0007] Lines 5-6) connected by a DSL modem (Chiles et al. Figure 4 "xDSL Modem" 420d).

17. Regarding claim 14, the Chiles, SGI, and Microsoft references teach all the limitations of claim 9 in which claim 14 depends on. In addition, the Chiles reference teaches the network elements have associated local addresses which are unique only in the packet-switching network (Chiles Figure 12 "LAN Address", [0085] Lines 1-3, and [0086] Lines 1-4).

18. Regarding claim 17, the Chiles, SGI, and Microsoft references teach all the limitations of claim 9 in which claim 17 depends on. In addition, the Chiles reference teaches the network node device is a router (Chiles et al. "Home Gateway Device") which has an entity for setting up and operating a tunnel connection (Chiles et al. Figure 13 "L2TP Concentrator" 1319). However, the Chiles reference uses L2TP tunnel connection instead of PPTP tunnel connection as used by the claimed invention. For the same reasons taught by the Microsoft document as noted above, it would have been obvious to one of

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ordinary skill in the art at the time of the invention to set up a PPTP tunnel connection using the PPTP tunneling protocol instead of L2TP tunneling protocol.

19. Regarding claim 18, the Chiles, SGI, and Microsoft references teach all the limitations of claim 10, in which claim 18 depends on. Furthermore, the Chiles reference teaches the network node device is a router which has an entity for setting up and operating a tunnel connection (Chiles et al. "Home Gateway Device" functions as a router and Figure 13 "L2TP Concentrator" 1319).

However, the Chiles reference uses L2TP protocol instead of PPTP protocol.

For the same reasons taught by the Microsoft document as noted above, it would have been obvious to one of ordinary skill in the art at the time of the invention to set up a PPTP tunnel connection using the PPTP tunneling protocol instead of L2TP tunneling protocol.

20. Regarding claims 16 and 19, the Chiles, SGI, and Microsoft references teach all the limitations of claims 8 and 13 in which claims 16 and 19 depend on, respectively. Furthermore, the Chiles reference teaches the network node device is a router which has an entity for setting up and operating a tunnel connection (Chiles et al. "Home Gateway Device" functions as a router and Figure 13 "L2TP Concentrator" 1319). However, the Chiles reference uses L2TP protocol instead of PPTP protocol. For the same reasons taught by the Microsoft reference as noted above, it would have been obvious to one of ordinary skill in the art at the time of the invention to set up a PPTP tunnel connection using the PPTP tunneling protocol instead of L2TP tunneling protocol.

***Conclusion***

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Microsoft White Paper "Virtual Private Networking with Windows Server 2003: Overview" teaches why PPTP tunneling protocol which is claimed in the invention may be preferred over L2TP tunneling protocol.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUPAPORN NILANONT whose telephone number is (571)270-5655. The examiner can normally be reached on Monday through Thursday and alternate Friday at 7:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Robertson can be reached on 571-272-4186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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